

STM32U083C-DK

MB1933

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U_MB1933_TOP
MB1933_TOP.SchDoc

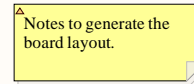


Legend

General comment such as function title, configuration, ...

Text to be added to silkscreen.

Warning text.



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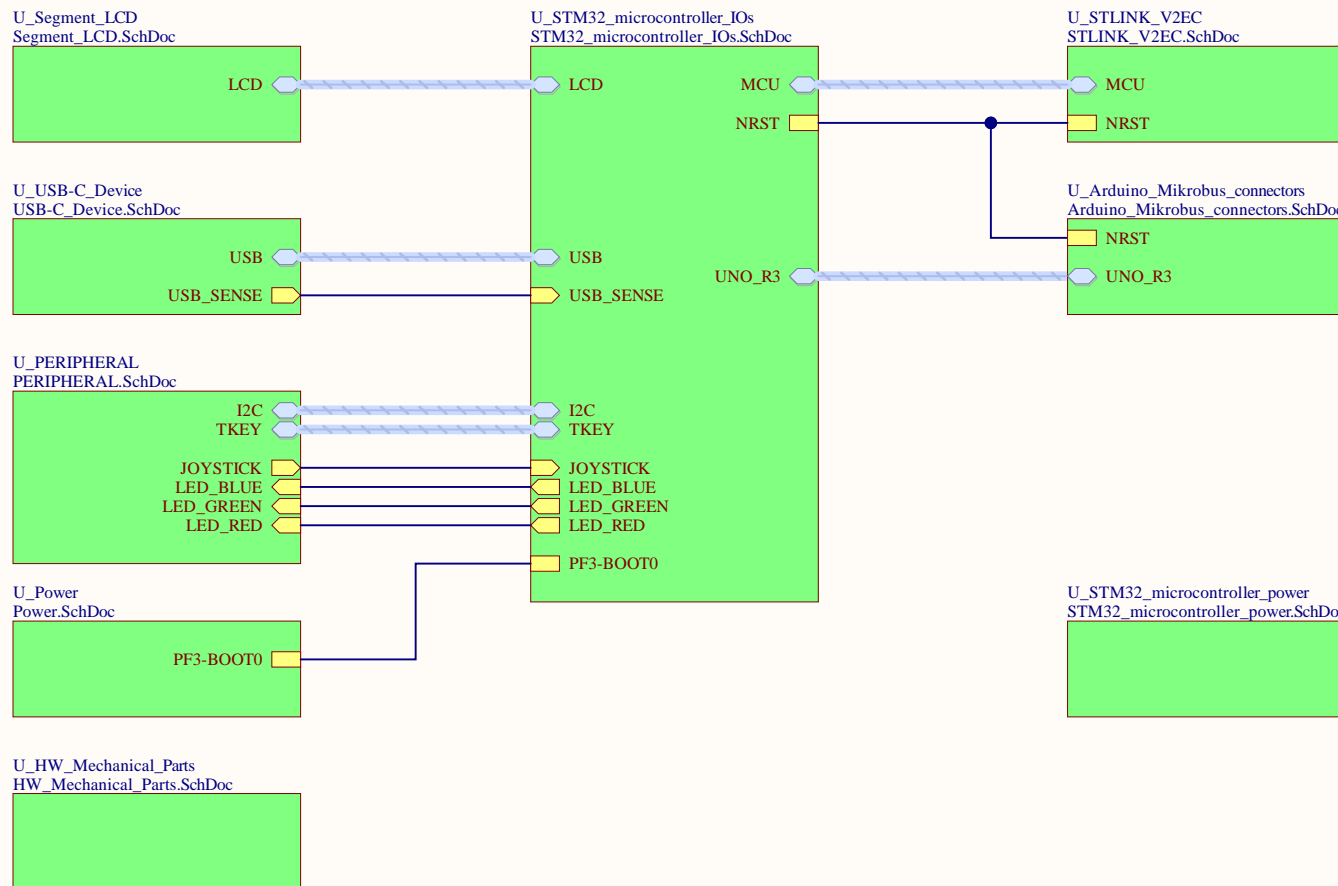
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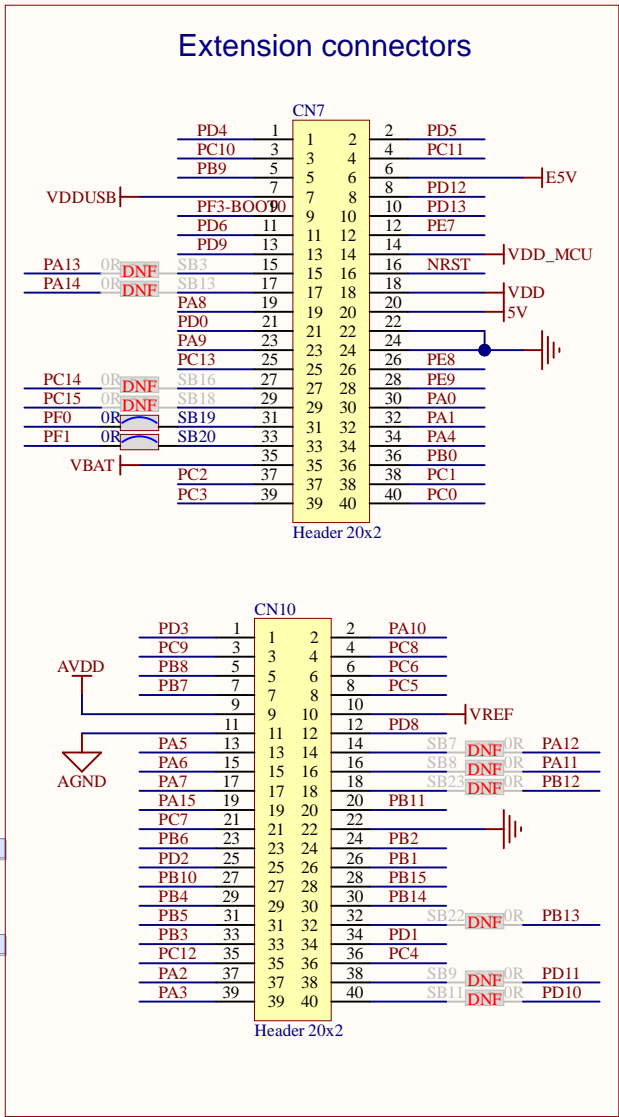
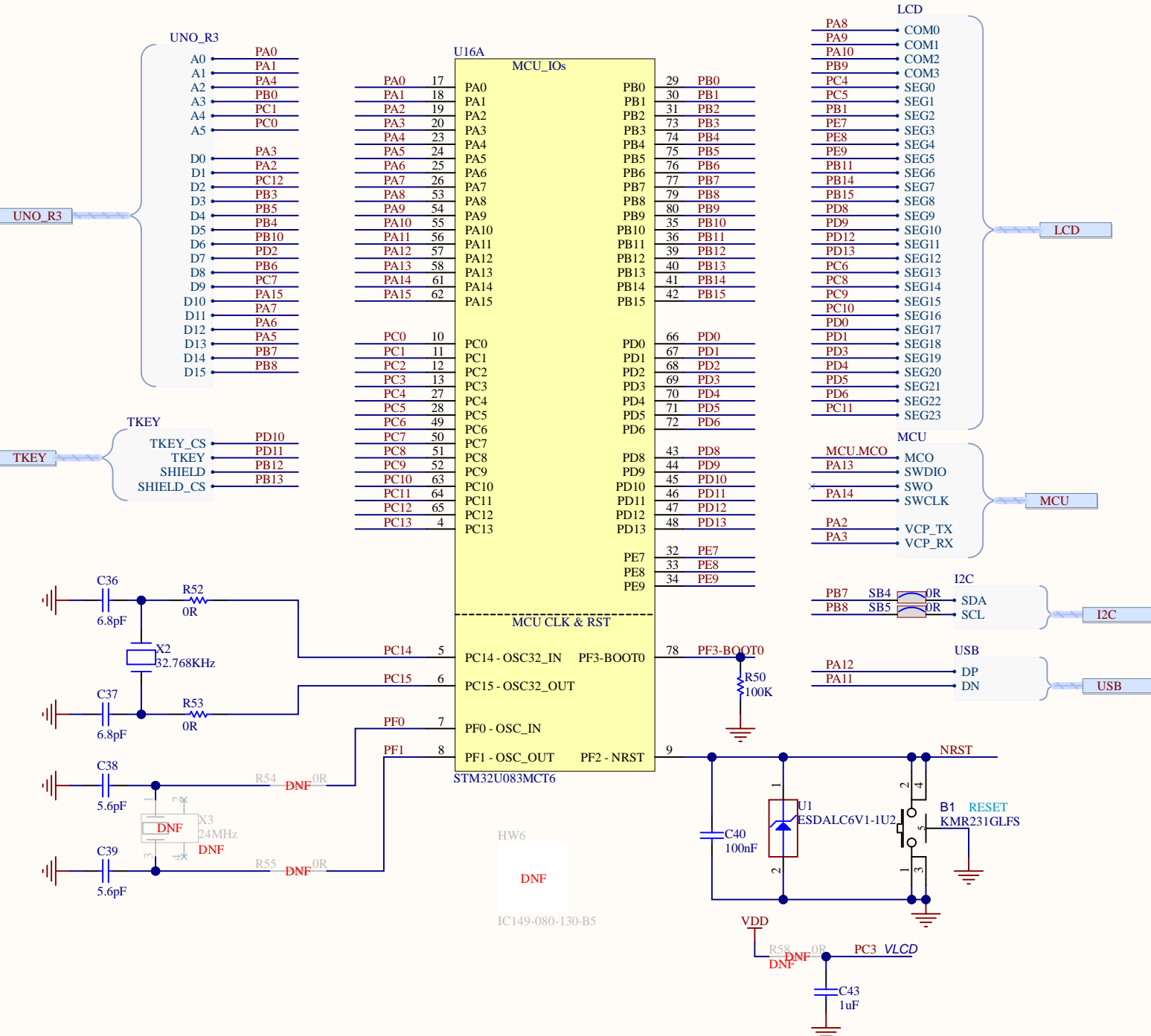
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Title: Project overview		
Project: STM32U083C-DK		
Variant: U083C		
Revision: C-02		Reference: MB1933
Size: A4	Date: 21-OCT-2023	Sheet: 1 of 11

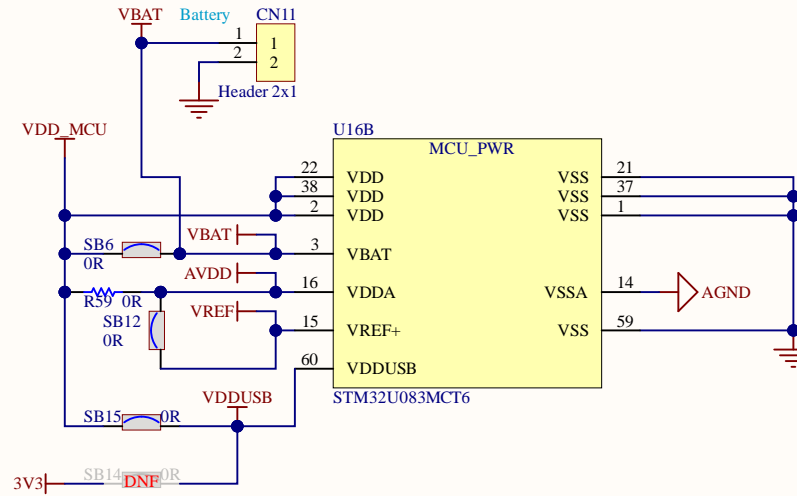






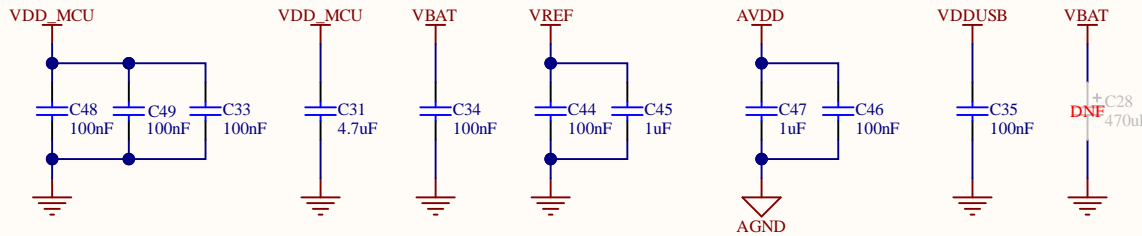
PC13	LED GREEN
PB2	LED RED
PA5	LED BLUE
PC2	JOYSTICK
NRST	NRST
PF3-BOOT0	PF3-BOOT0
PB6	USB SENSE

MCU PWR

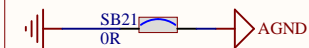


SB12 ON, External voltage for VREF+
 SB12 OFF, Internal voltage reference mode, config VREFBUF

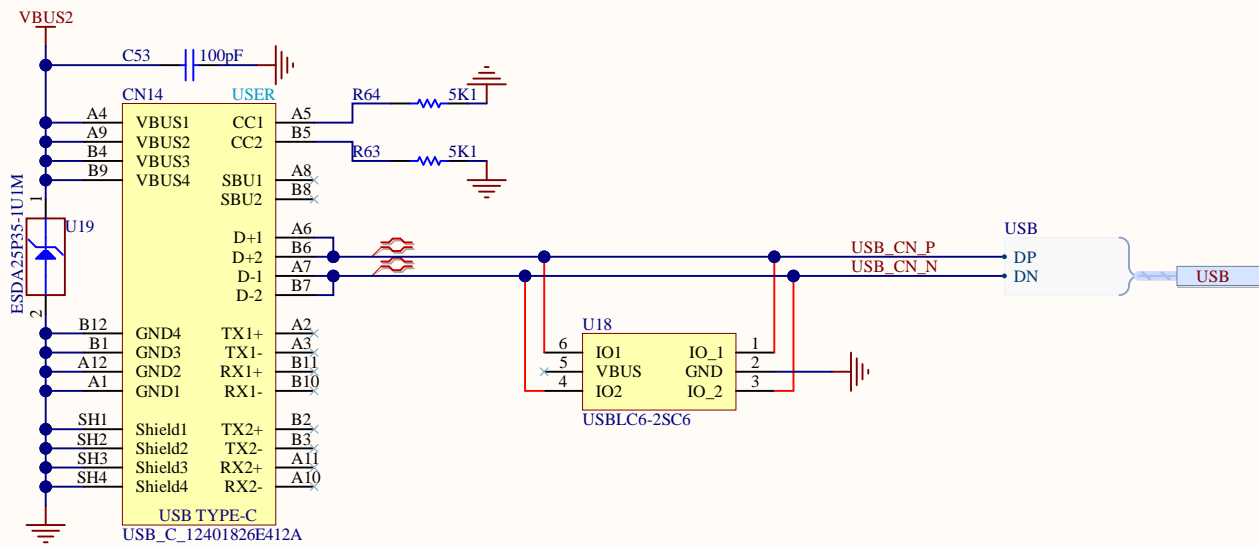
MCU DECAPS
 Ceramic capacitor (Low ESR, ESR<1ohm)



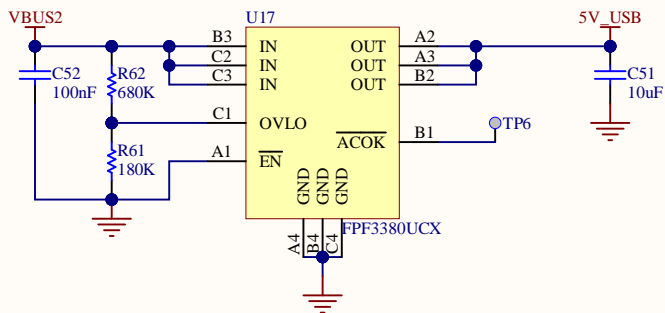
GND/AGND



USER USB

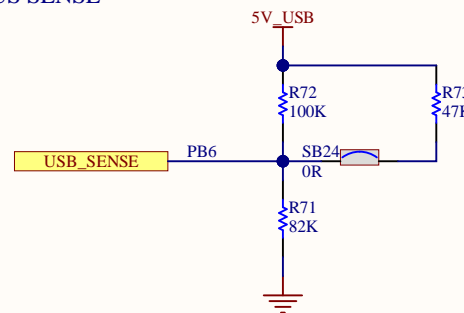


VBUS OVP



$$V_o = (680 + 180) / 180 * 1.2 = 5.73V$$

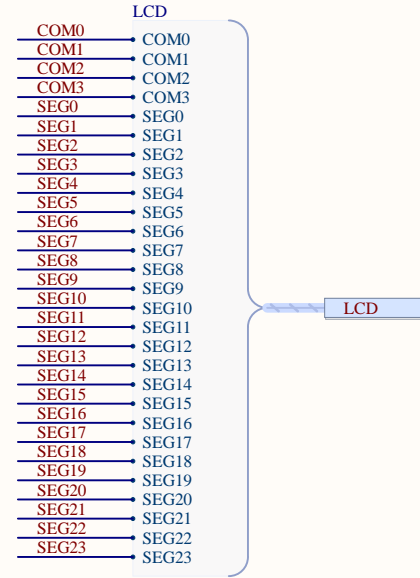
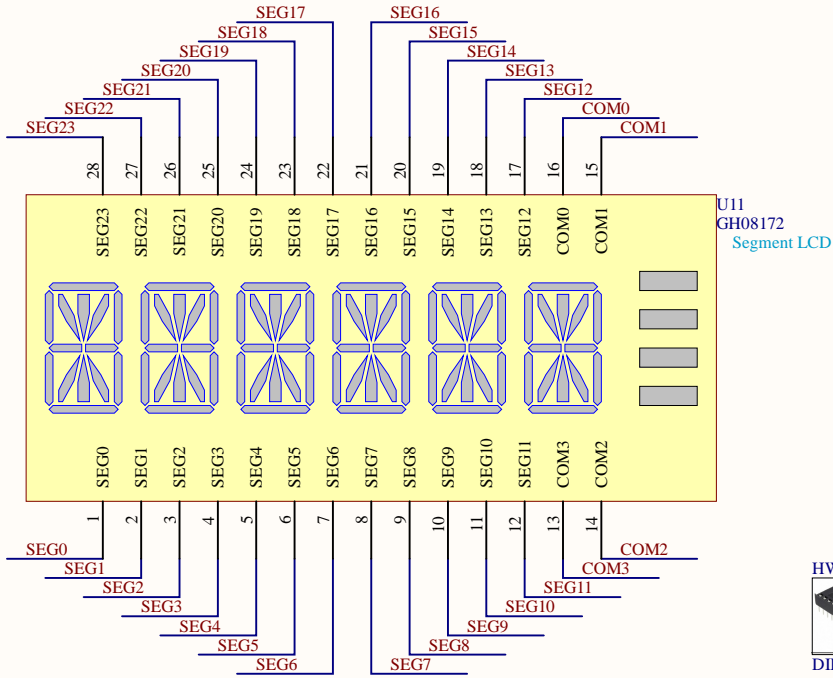
VBUS SENSE



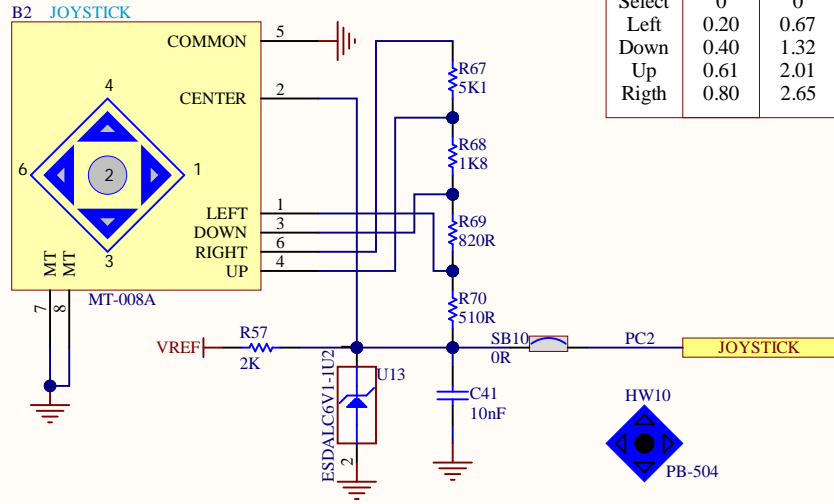
SBx ON, when VDD= 3V3
SBx OFF, when VDD= 1V8



LCD

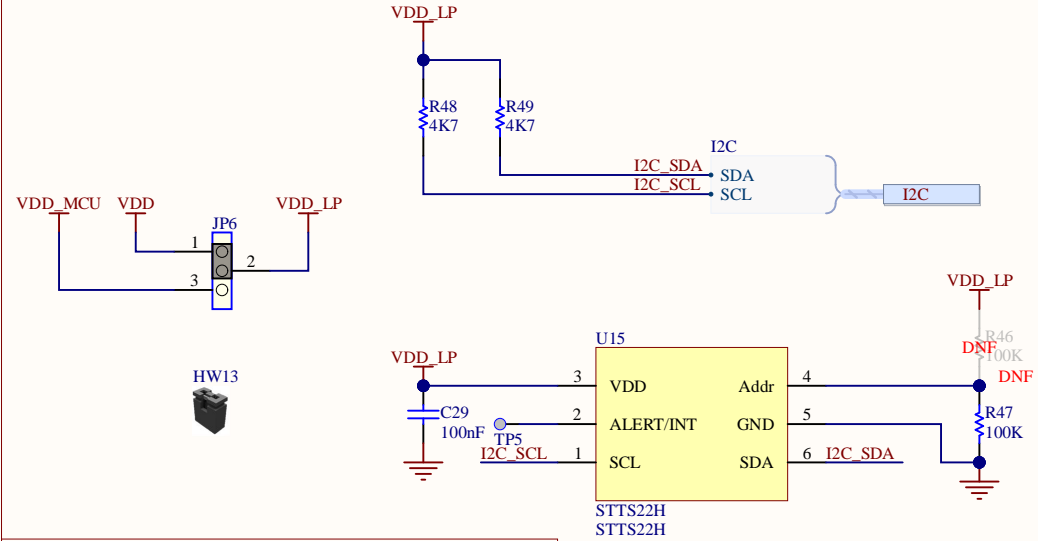


JOYSTICK



Pos.	MRatio	Adc[V]
Select	0	0
Left	0.20	0.67
Down	0.40	1.32
Up	0.61	2.01
Right	0.80	2.65

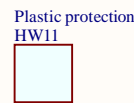
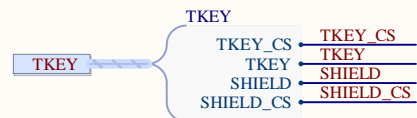
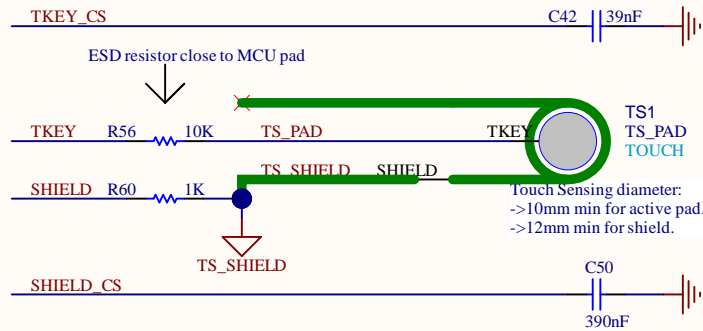
TEMPERATURE SENSOR



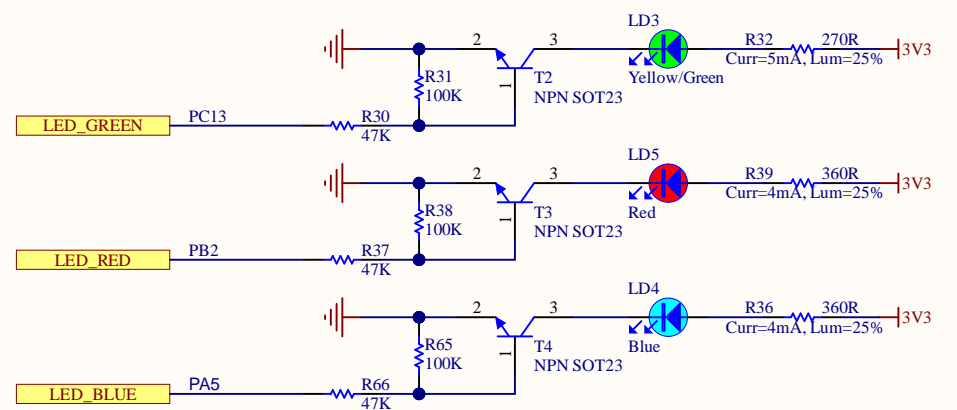
Operating range: 1.5V < VDD < 3.6V
 I2C Address: 0x7E: 0b:0111.111x Addr=0 (Default)
 0x70: 0b:0111.000x Addr=1

TOUCH_KEY

Please refer to STM AN4312: Guidelines for designing touch sensing applications with surface sensors



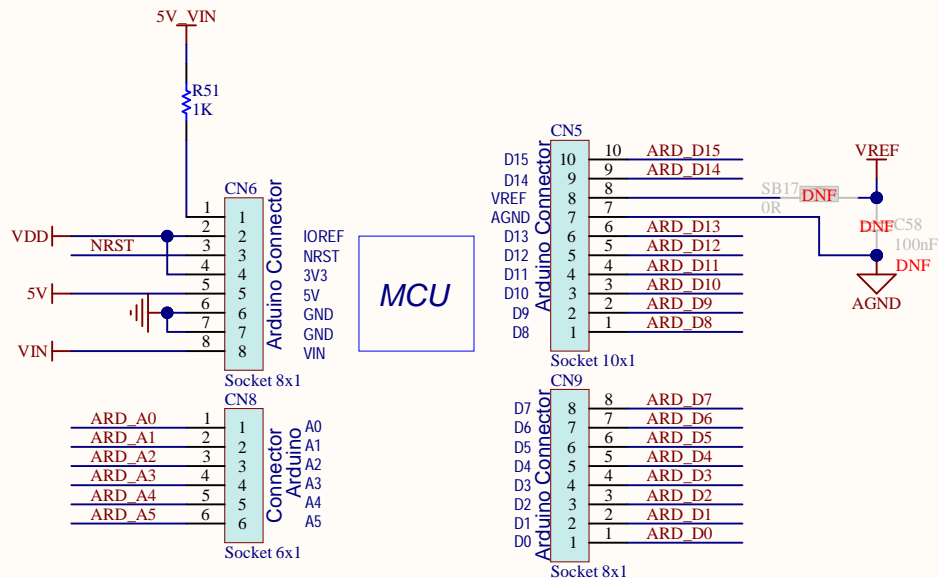
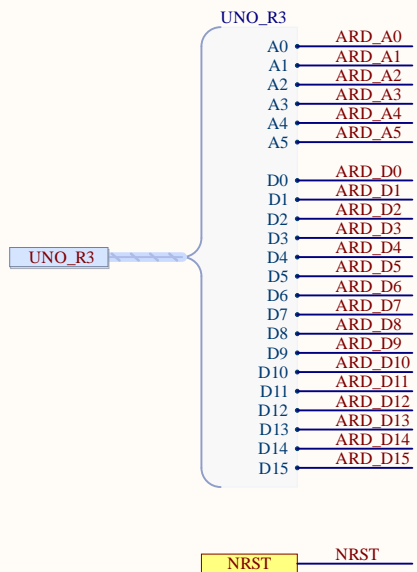
LEDs



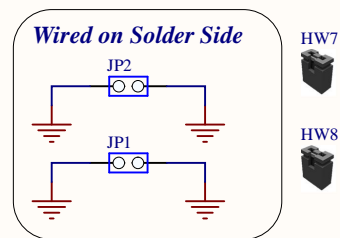
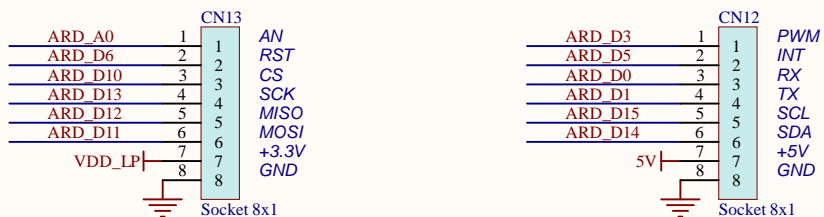
LIMITATIONS:
 PA5 shared with Arduino D13
 LED ISOLATION FOR 1V8 IO COMPLIANCY



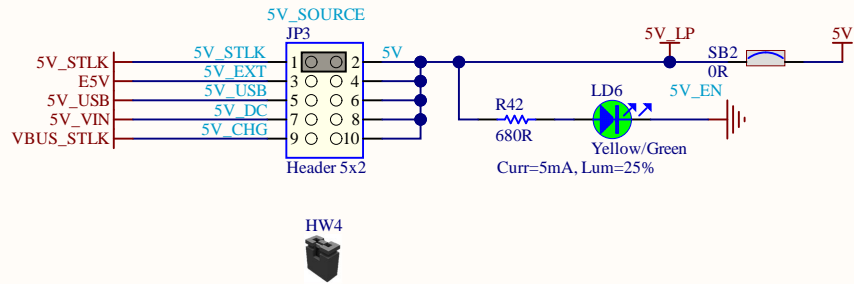
Arduino connectors



Mikrobus connectors



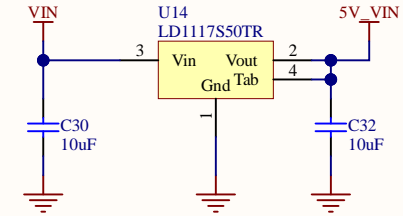
5V PWR SELECTION



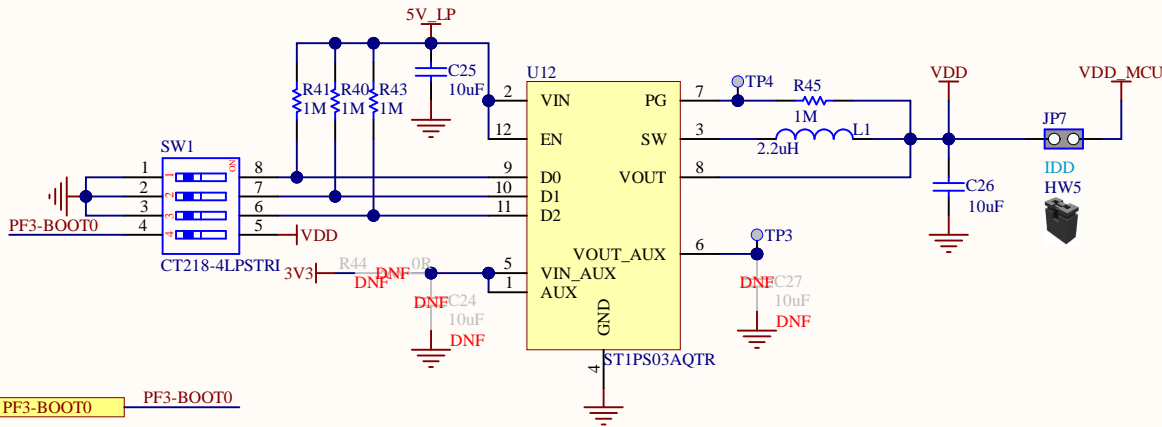
HW4

MAX CURRENT 500mA

VIN / 5V PWR



1V6 ~ 3V3 PWR



PF3-BOOT0

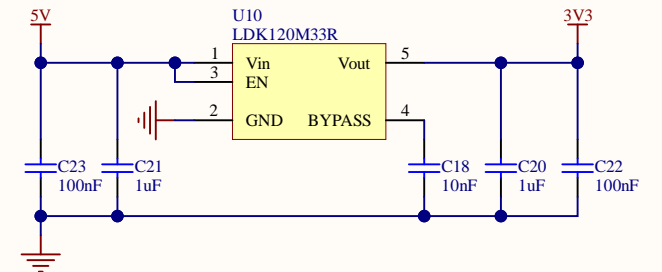
Output voltage configuration

D2	D1	D0	VOUT
0	0	0	1V8
0	0	1	3V3
0	1	0	2V8
0	1	1	2V7
1	0	0	3V
1	0	1	2V1
1	1	0	1V6
1	1	1	2V5

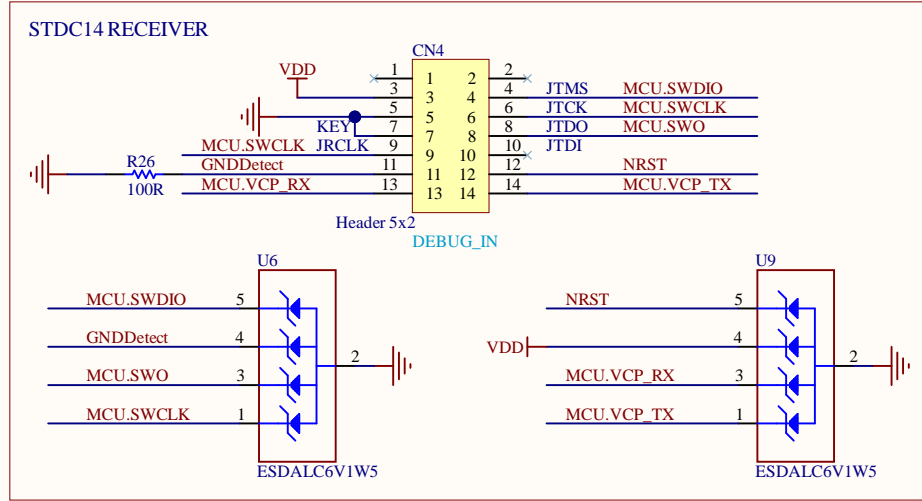
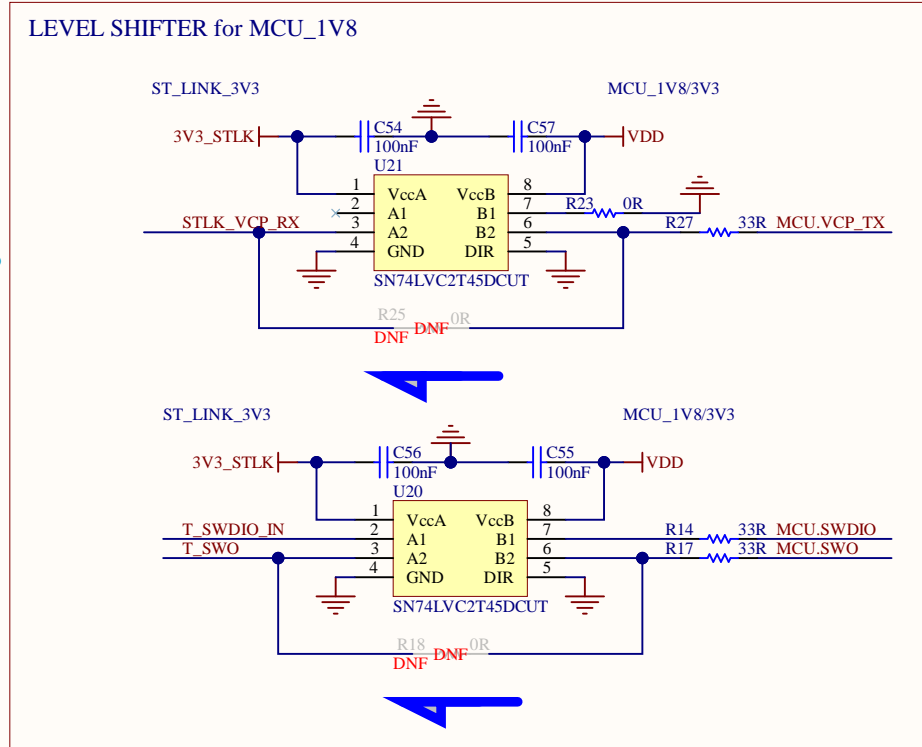
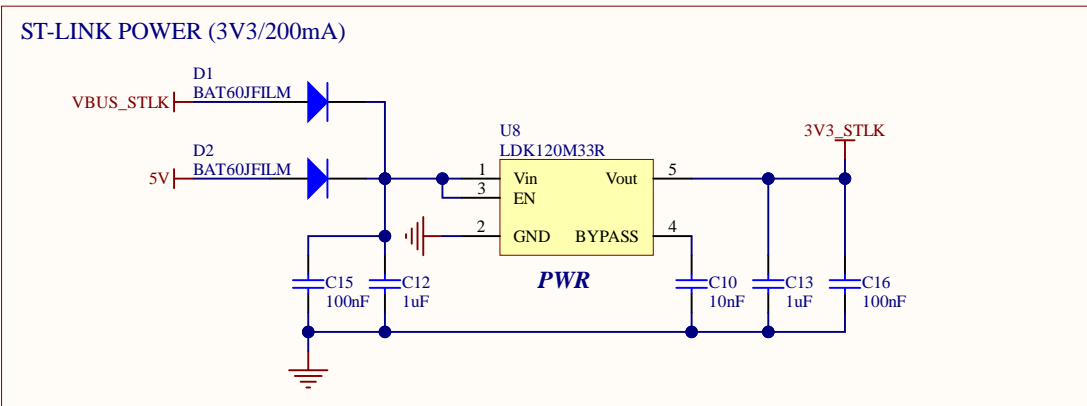
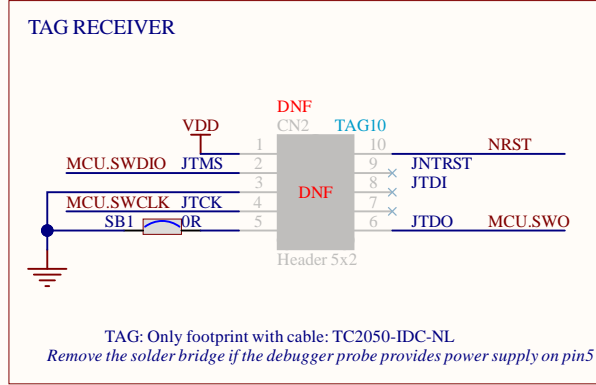
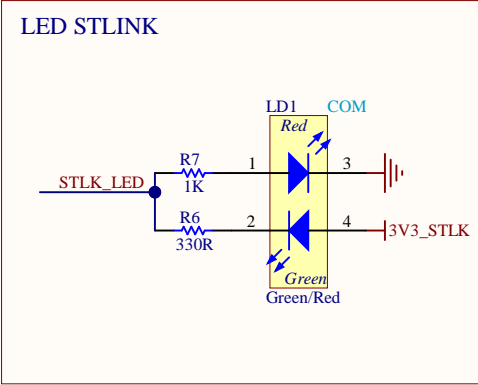
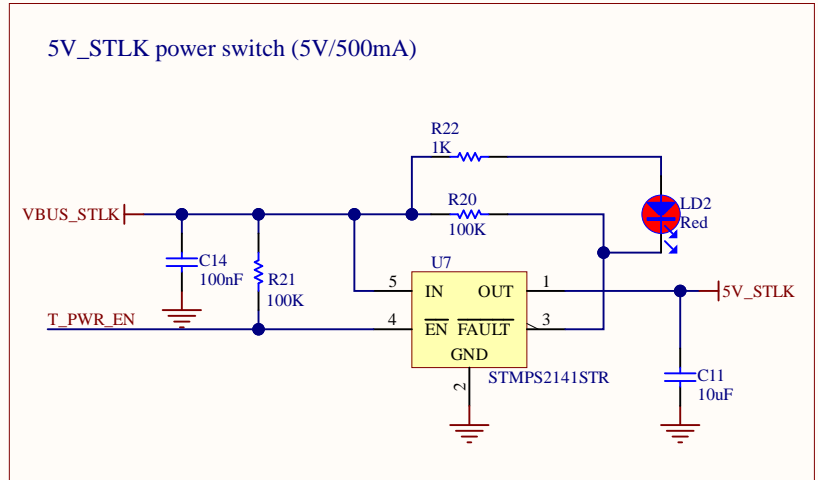
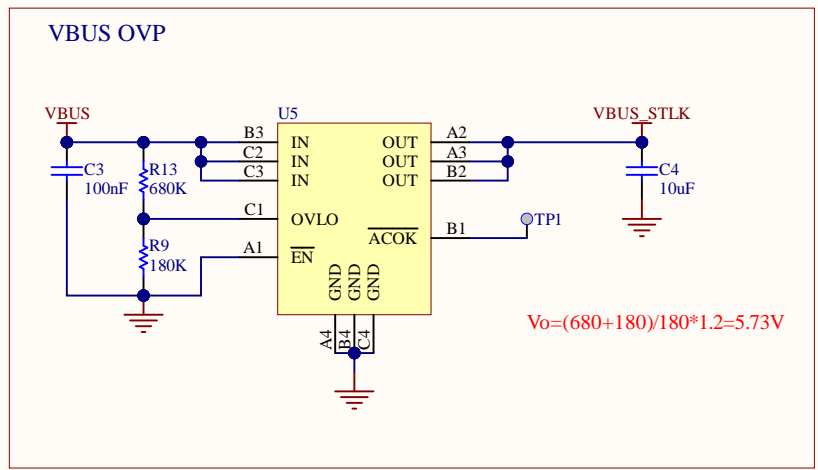
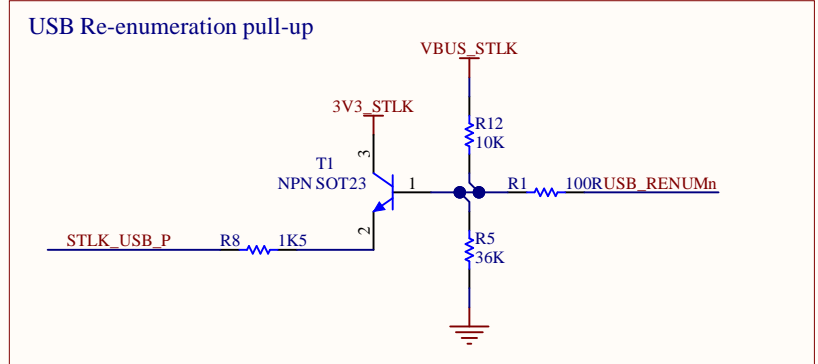
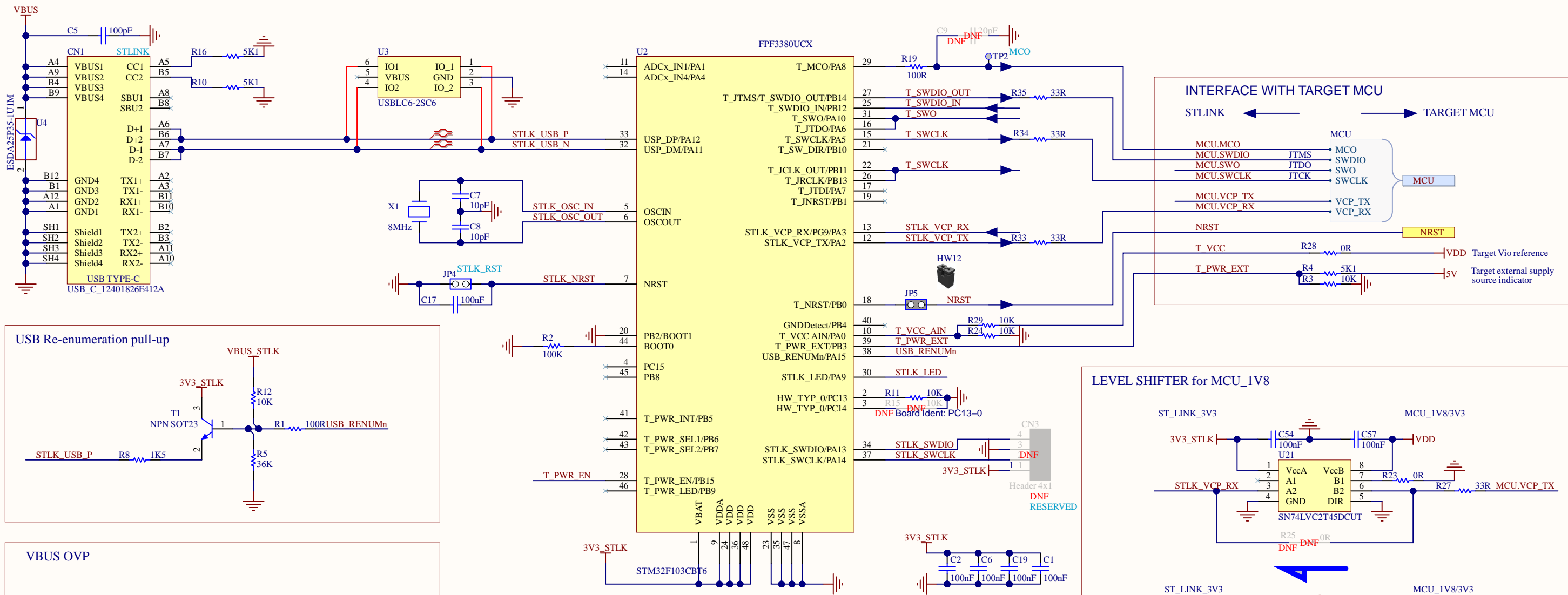
Swth definition

Pos.	Function	Def.
1-8	D0	OFF
2-7	D1	ON
3-6	D2	ON
4-5	5V	OFF

3V3 PWR



STLINK-V2EC



HW Mechanical parts

HW2

Sticker board

STICKER BOARD

HW1

STICKER PRODUCT

Sticker product

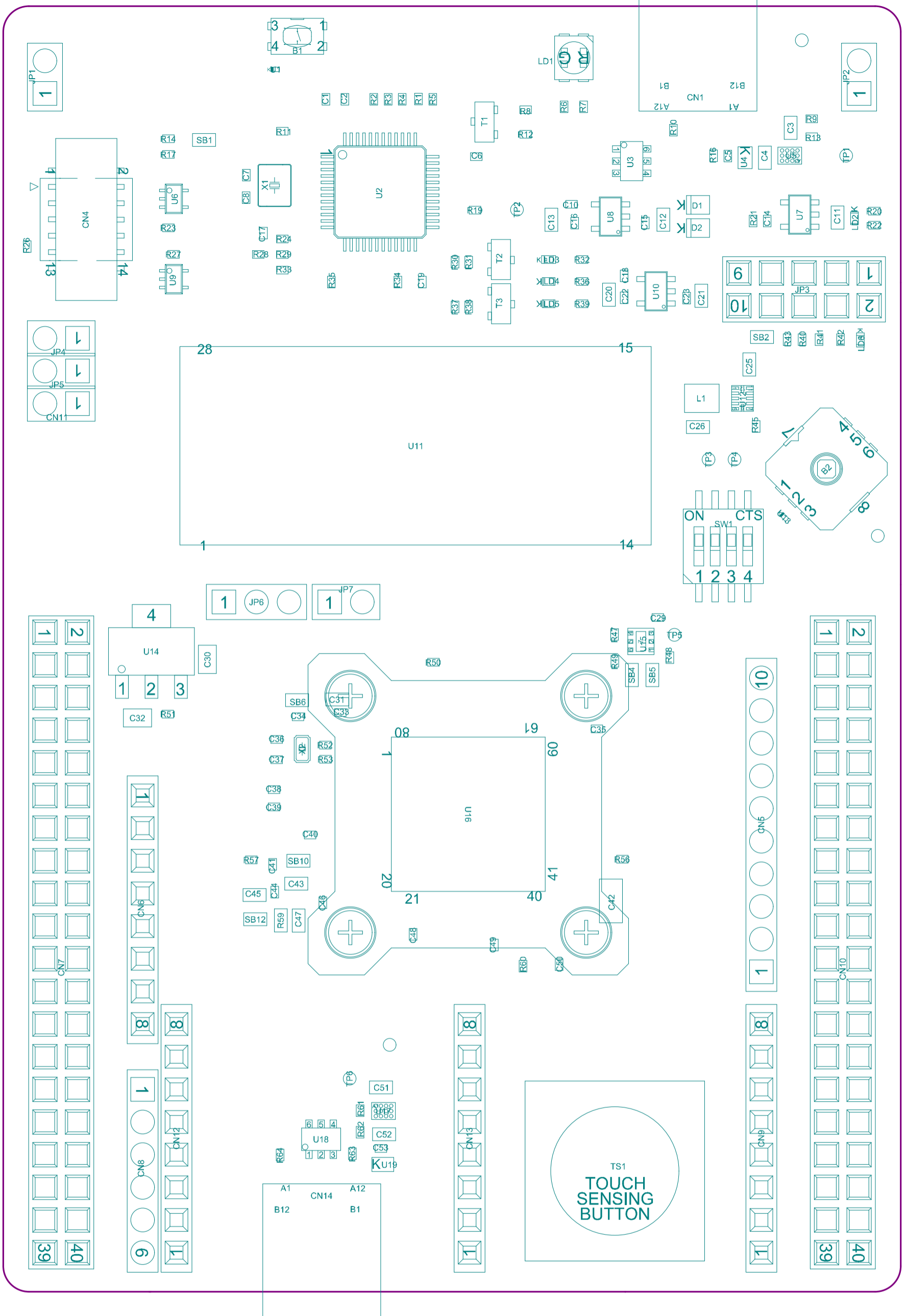
HW3

PCB

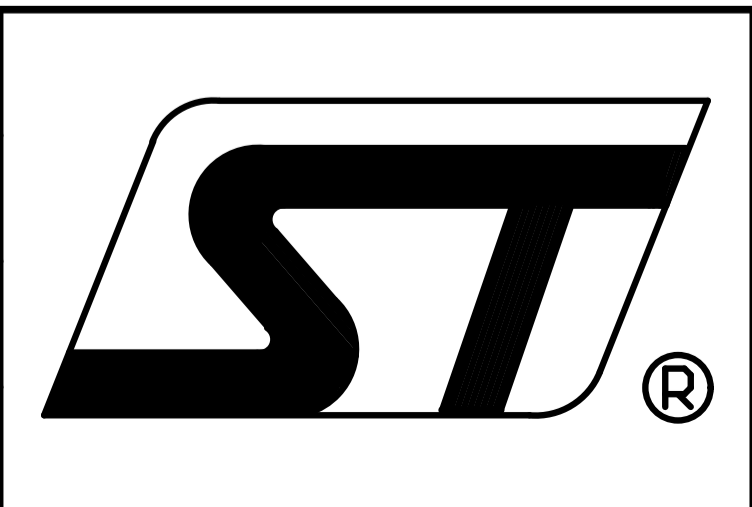
MB1933

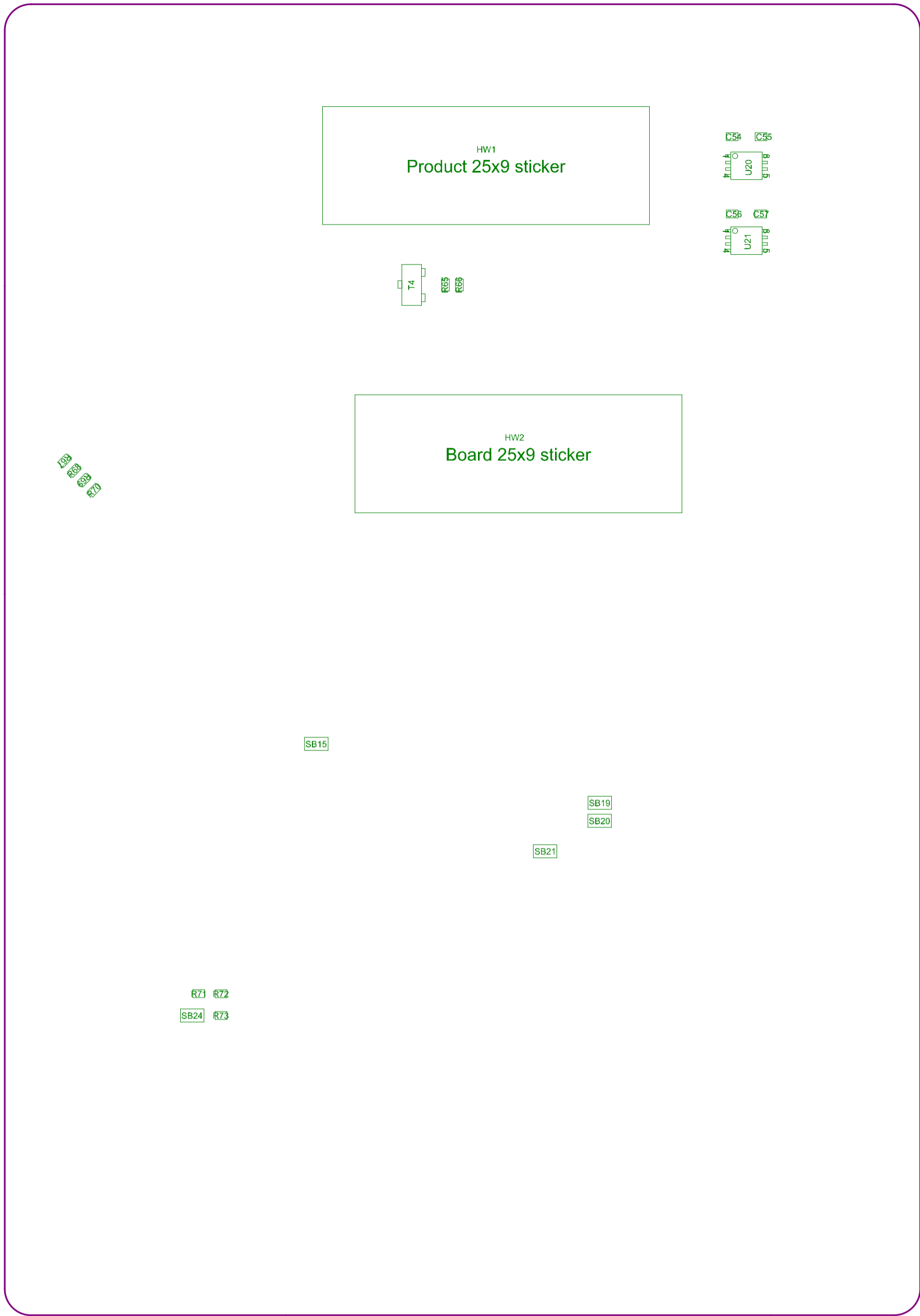
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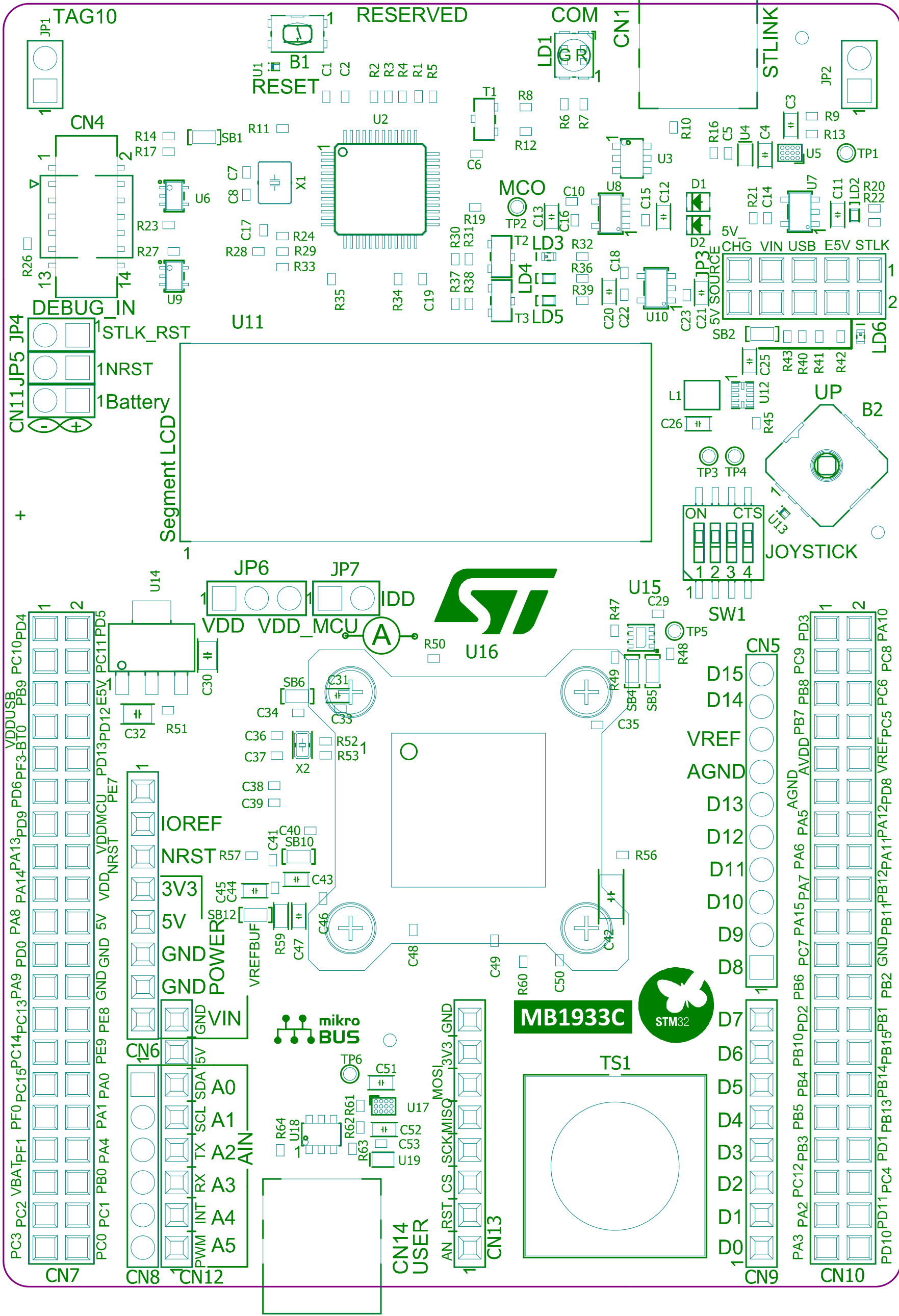
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Layer:	Gerber:
Variant: U083C	Ref: MB1933
Date: 21-OCT-2023	Rev: C





Project: STM32U083C-DK	
Layer:	Gerber:
Variant: U083C	Ref: MB1933
Date: 21-OCT-2023	Rev: C



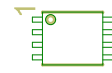


HW1



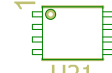
Product 25x9 sticker

C54 C55



U20

C56 C57



U21

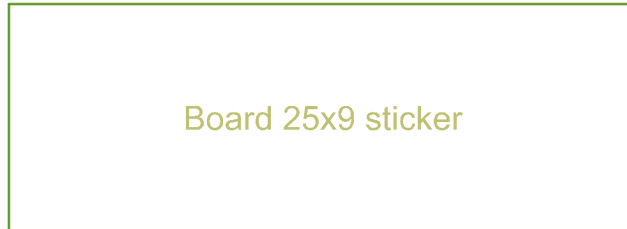
UK
CA



R65
R66

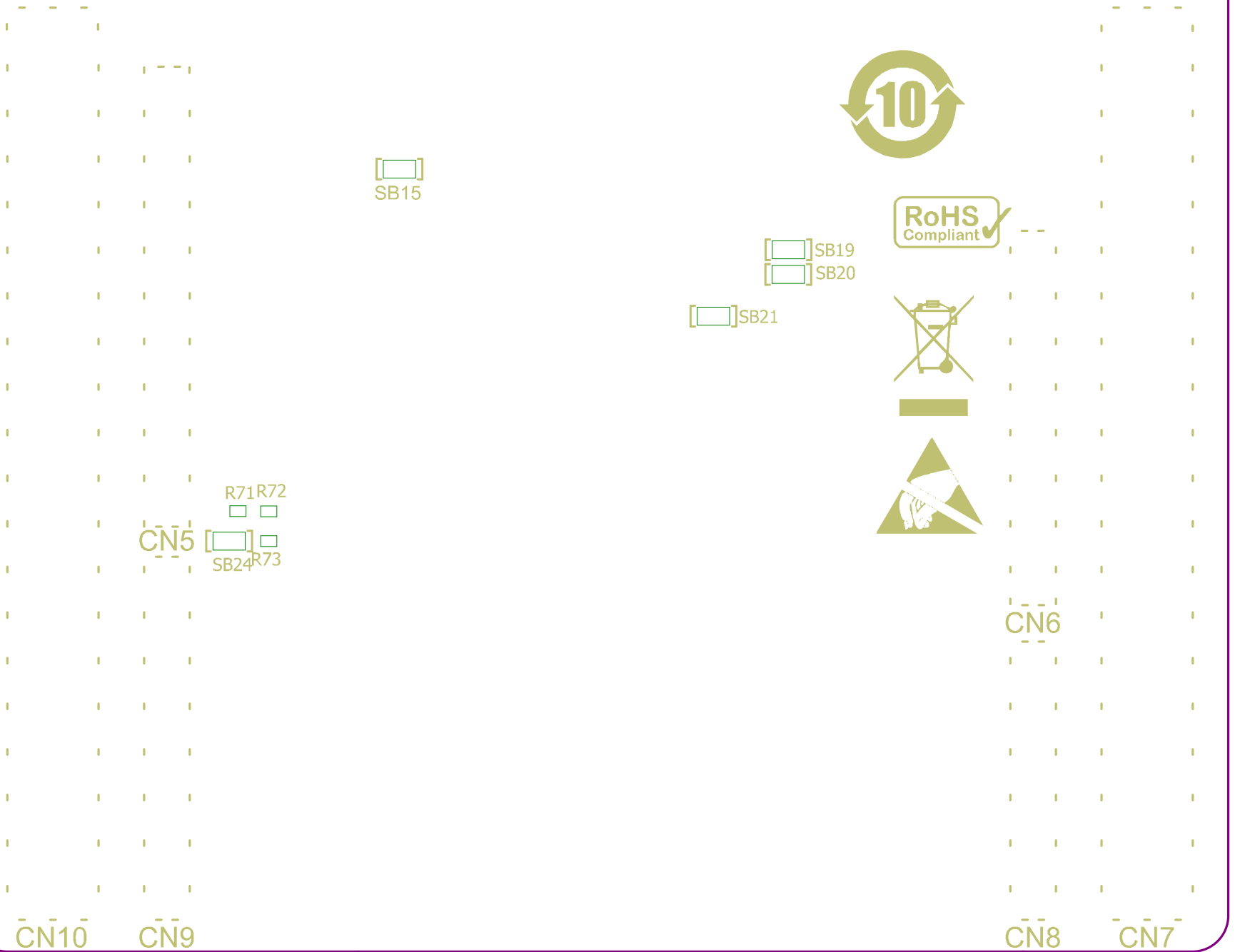


HW2



Board 25x9 sticker

R67
R68
R69
R70



RoHS
Compliant

